

Case Studies - Industry Week 2008

Printing and Graphic Industry

Application Bookbinding with FKW60

Case Study No #2

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Application Bookbinding with FKW 60

Application Description

Final Customer Product

Product Description

- Threadless bind book
- Spine gluing



Final Customer Product

RR DONNELLEY

Customer Information

- Headquarters: Chicago, Illinois
- 2007 sales in millions: \$11,587.1
- Employees: over 60,000 worldwide
- Locations: Manufacturing operations in North America, Latin America, Asia and Europe
- Year founded: 1864

Customer Competitor

- Many big and small companies
C & C Printing (Asia)



How the Project started

Start:	Beginning 2006
Up to now	Cold glue system Open pot, solvent based...
Planned Systems	In Chile the market is little, but for the next years up to 4 systems are planned
Contact	Edgardo Guerra

First Contact / Door Opener

- First contact was in 2004 in Quebecor World, Chile whom was seeing to innovate with PUR in spine application, but finally RR Donnelley was who opened the door
- RR Donnelley accepted to carry out first trials using our trial equipment; an MOD 4 with FKS in low speed (1.000 books/hour as maximum. Bracketry was made from RT-Chile and application was successful. Customer was an excellent partner in trials phase.

Application Bookbinding with FKW 60

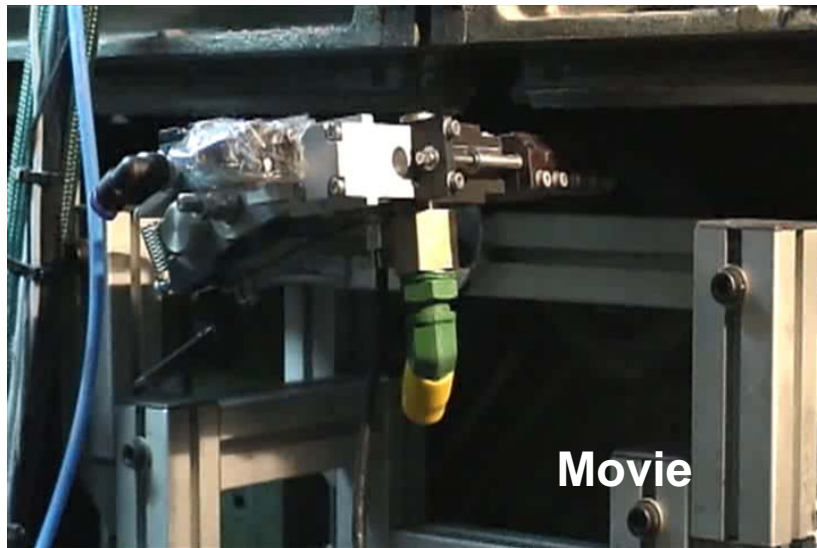
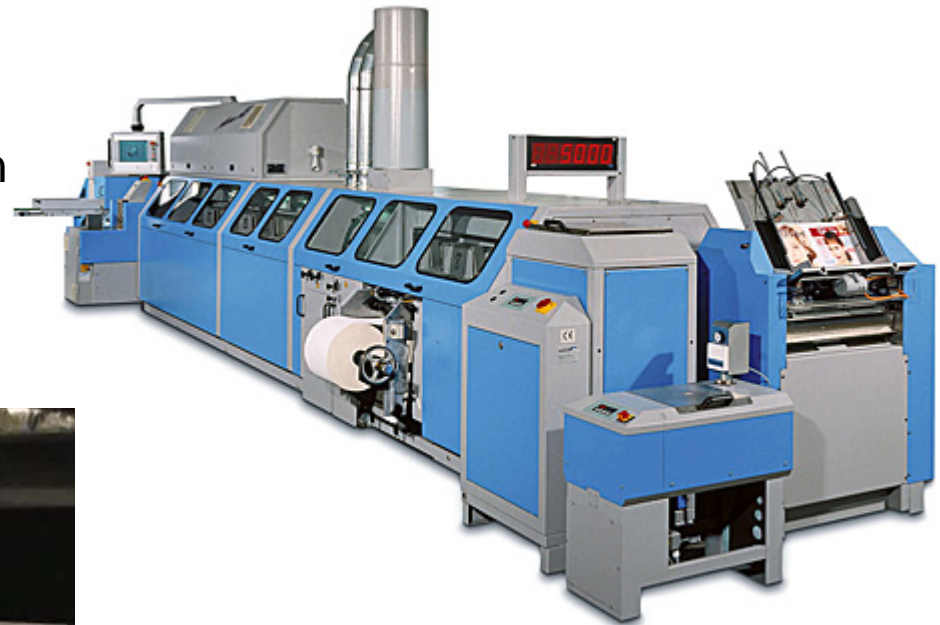
Application Description

RO

Robatech
Gluing Technology

Production Process

- Pumelt MOD4 & FKW 60, right side
- Applying adhesive from bottom up on the book
- Equipment: Encoder, photo cell

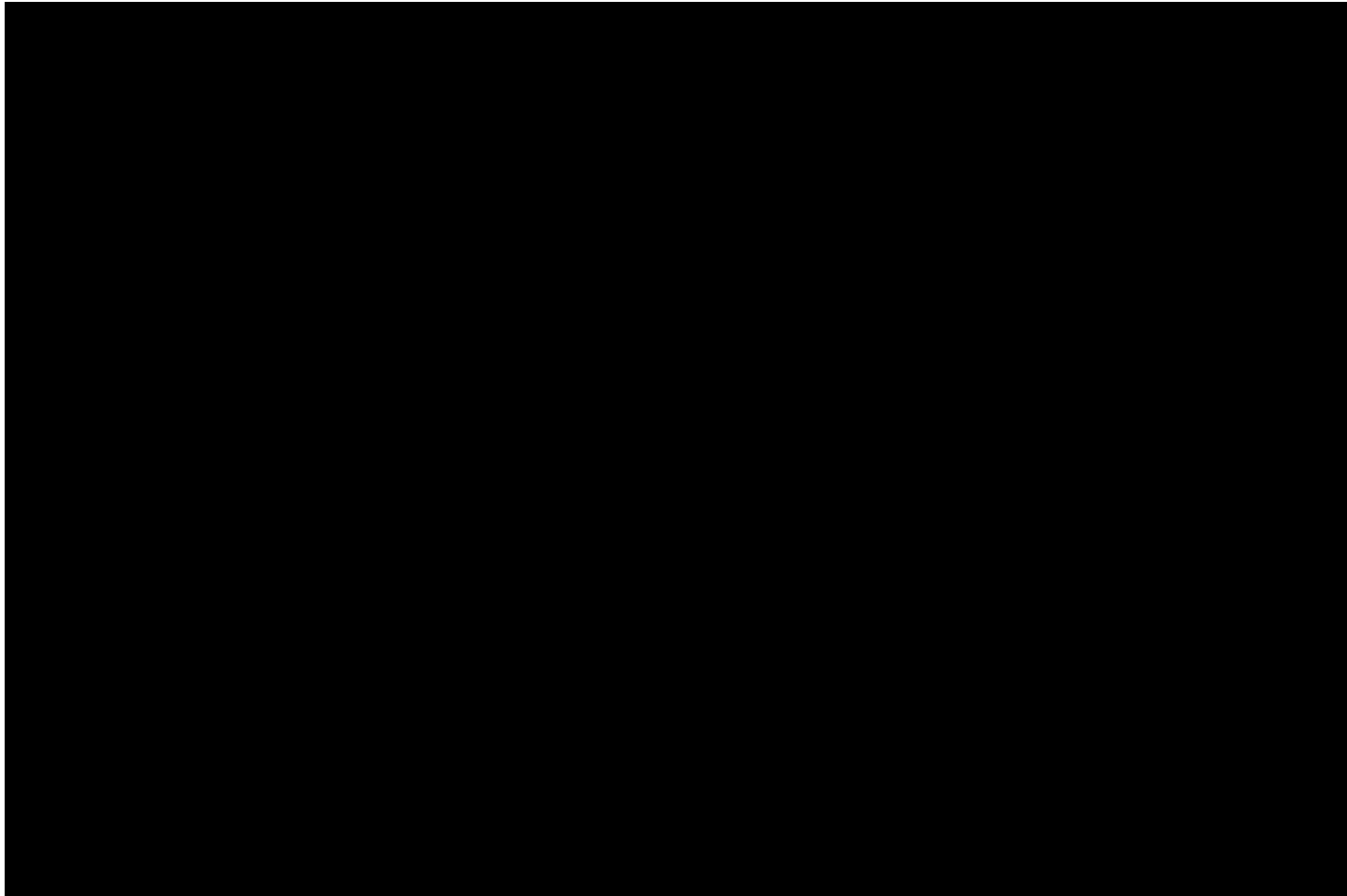


Application Bookbinding with FKW 60

Application Description



Robatech
Gluing Technology



Specific Process Requirements

- 4.500 books/hour;
- wide between 5 – 60 mm,
- best book finishing, higher book durability
- easy book handling
- There are no information from RR Donnelley about cost reduction

Finished Product Requirements

- PUR bound book
- Full glued surface (every paper has to stick)
- No overrun of adhesive at the beginning of the bookspine

Application Checklist

Adhesive Type	Henkel Purmelt RQ 3317 BR
Viscosity	2.500 to 4.500 mPas
Application Method	Coating, bottom up
Application Width	22 and 25 mm produced up to now
Application Weight	330 gr/m ²
Application Tolerance	± 5%
Substrate	Cluché paper 80 gr/m ² and Bond paper 75 gr/m ²
Application Speed	4.500 books per hour
Pump Rate	22.5 Kg/hr
OEM-Machine-Type	Muller Martini Normbinder NB 2-5 24 type: 3001.0451
Application Process	Bookbinding

Application Bookbinding with FKW 60

Robatech Solution

RO

Robatech
Gluing Technology



Commercial Consideration

Price Negotiation	Yes
Discounts	15%
Level of Competition	Low
Delivery Conditions	System installed including start up + technical training
Payment Conditions	30 days
Currency	USD
Delivery Time	45 days from Order
Warranty	12 month

Benefit of Robatech

- To be able to sell another system for bookbinding (vs. Muller Martini private label VPN Version)
- Cheap system for PUR application
- Upgrade any Bookbinding machine, not only Muller Martini

Potential for Duplication

- All over the world

Benefit of Customer

- cheap system
- saving adhesive (compared to pot)
- Low pollution MOD/nozzle system
- Easy to use
- Friendly system

Reference Installations

- RR Donnelly, Chile
- Possible for visits: yes

Evaluation

Advantages	Concerns
☺ Easy implementation	☹ Dedicated application
☺ Good earn / high margin	
☺ Long term potential	
☺ High differentiation – Niche	
☺ Robatech technology	

Comment / Hints & Tips

Now RT-Chile is studying to install UV lamps in order to improve production time (cured)